



SEQUENCE LISTING

<110> KUMAGAI, Izumi et al.

<120> NOVEL DIABODY-TYPE BISPECIFIC ANTIBODY

<130> 4600-0106P

<140> US 10/642,284

<141> 2003-08-18

<150> JP 2003-038643

<151> 2003-02-17

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<170> PatentIn version 3.1

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tca gtg aag ctg ccc tgc aag gct tct ggc gac aca ttc acc agt tac 96  
 Ser Val Lys Leu Pro Cys Lys Ala Ser Gly Asp Thr Phe Thr Ser Tyr  
 20 25 30

tgg atg cac tgg gtg aag cag agg cat gga cat ggc cct gag tgg atc 144  
 Trp Met His Trp Val Lys Gln Arg His Gly His Gly Pro Glu Trp Ile  
 35 40 45

gga aat att tat cca ggt agt ggt ggt act aac tac gct gag aag ttc 192  
 Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
 50 55 60

aag aac aag gtc act ctg act gta gac agg tcc tcc cgc aca gtc tac 240  
 Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ser Arg Thr Val Tyr  
 65 70 75 80

atg cac ctc agc agg ctg aca tct gag gac tct gcg gtc tat tat tgt 288

Met	His	Leu	Ser	Arg	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys		
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Thr	Arg	Ser	Gly	Gly	Pro	Tyr	Phe	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr		
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Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Asn	Ile	Val	His	Asn		
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aat	gga	atc	acc	tat	tta	gaa	tgg	tac	ctg	caa	agg	cca	ggc	cag	tct	144	
Asn	Gly	Ile	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Arg	Pro	Gly	Gln	Ser		
			35				40					45					
cca	aag	ctc	ctg	atc	tac	aaa	gtt	tcc	gac	cga	ttt	tct	ggg	gtc	cca	192	
Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asp	Arg	Phe	Ser	Gly	Val	Pro		
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Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile		
65					70				75					80			
agc	aga	gta	gag	gct	gag	gat	ctg	gga	att	tat	tac	tgc	ttt	caa	ggt	288	
Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Ile	Tyr	Tyr	Cys	Phe	Gln	Gly		
				85				90					95				
tca	cat	att	cct	ccc	acg	ttc	gga	ggg	ggg	acc	aag	ctg	gaa	atc	aaa	336	
Ser	His	Ile	Pro	Pro	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys		
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Arg	Ala																

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 1 5 10 15  
 agc ctg cgc ctg tct tgc aaa gcg agc ggc tat acc ttt acg cgc tat 96  
 Ser Leu Arg Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr  
 20 25 30  
 acc atg cat tgg gtg cgc cag gcg ccg ggc aaa ggt ctg gaa tgg att 144  
 Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile  
 35 40 45  
 ggc tat att aac ccg tct cgc ggc tat acc aac tat aat cag aaa gtg 192  
 Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val  
 50 55 60  
 aaa gat cgc ttt acc att agc cgc gat aac tct aaa aac acc gcg ttt 240  
 Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe  
 65 70 75 80  
 ctg cag atg gat agc ctg cgc ccg gaa gat acc ggc gtg tat ttt tgc 288  
 Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys  
 85 90 95  
 gcg cgc tac tat gat gac cat tat agc ctg gat tat tgg ggc cag ggc 336  
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gat cgc gtg acc att acg tgc agc gcg tct agc tct gtg agc tat atg	96
Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met	
20 25 30	
aac tgg tac cag caa acc cca ggc aaa gcg ccg aaa cgc tgg att tat	144
Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr	
35 40 45	
gat acc agc aaa ctg gcg agc ggc gtg ccg agc cgc ttt agc ggc tct	192
Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser	
50 55 60	
ggg agc ggc acc gat tat acg ttt acc att agc tct ctg cag ccg gaa	240
Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu	
65 70 75 80	
gat att gcg acc tat tac tgc cag caa tgg agc tct aac ccg ttt acc	288
Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr	
85 90 95	
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr	
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tgg atg cat tgg gtg cgc cag gcc ccg ggt cag ggc ctg gaa tgg atg	144
Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met	
35 40 45	
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Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe	
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aag aac cgc gtg acc atg acg cgt gat acc agc att tcg acg gcc tat	240
Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr	
65 70 75 80	

atg gaa ctg agc cgc ctg cgt agc gat gac acc gcc gtg tat tac tgc	288
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys	
85 90 95	
gcg cgc agt ggc ggt ccg tat ttt ttc gat tac tgg ggc cag ggt acg	336
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gaa ccg gcg tcg att agc tgc cgc agc tcg cag aac atc gtg cat aat	96
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn	
20 25 30	
aac ggc att acc tat ctg gaa tgg tat ctg cag aaa ccg ggc caa agc	144
Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser	
35 40 45	
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Pro Gln Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro	
50 55 60	
gat cgc ttt tcg ggc agc ggt agt ggc acc gat ttt acg ctg aaa att	240
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile	
65 70 75 80	
agc cgc gtg gaa gcg gag gat gtt ggc gtg tat tac tgc ttt cag ggc	288
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly	
85 90 95	
agc cat atc ccg cca acc ttt ggc caa ggc acc aaa gtg gaa att aaa	336
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20 25 30

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35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr

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Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
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Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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20 25 30

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35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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<223> Chimeric Sequence (h5H-m06)

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20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
 50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr  
 85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
 100 105 110

Leu Val Thr Val Ser Ser  
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 20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
 35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
 50 55 60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ile Ser Thr Ala Tyr  
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95



Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ser Arg Thr Val Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115